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TID/TAB - 64/64  
1 April 1964

MEMORANDUM FOR THE RECORD

SUBJECT: Stereoscopic Point Transfer Device Modified for Digitized Readout

1. [ ] TAB members are concerned with some of the proposed design features associated with the modification of the [ ] Stereoscopic Point Transfer Device. This concern stems from TAB's desperate need for a flexible and accurate digitized stereo comparator that will adequately meet current requirements for stereoscopic measurement. 25X1 25X1

2. Below are listed the design features that are considered controversial and therefore debatable:

a. The present proposal calls for precision ground, ball, lead screws with a 2 1/2 mm pitch and a system accuracy of 2 1/2 microns plus 0.005% of the distance traveled. It is believed that this degree of system accuracy will be hard to meet with the proposed screws. This belief is supported by discussions with several authorities on comparator accuracy, i.e., the accuracy claims by the manufacturer for a ground, ball, lead screw cannot be met. TAB, therefore, is requesting a more detailed study, analysis and documentation in order to guarantee a system as accurate as claimed.

b. The present proposal calls for complete control of the measuring mark of the stereo comparator by a multicontrol joystick. It is believed that this proposed feature would greatly decrease the versatility and flexibility of the instrument. The amount of time consumed and the degree of difficulty needed in the final positioning of the reticle over a point is much greater than that required with handwheels. The stereo comparator should be equipped with handwheels for rapid final pointing as well as a joystick for rapid film traversing.

c. The many functions that are to be activated from the joystick are also subject to debate. Much of the concern stems from lack of multicontrol joystick experience. For example, will activating a function cause changes in pointing? What happens when you accidentally activate the laser instead of the readout function, etc.? It is suggested that the controls recommended for the joystick be documented so that [ ] can devote a proper amount of time to their study for concurrence or non-concurrence. 25X1 25X1

d. There are, of course, other features that are of interest and that should be analyzed more closely, for example; the type and size of reticle, work space, adjustment of vacuum system, drift-free zoom control, trouble-free loading, etc. It is appreciated that these features are being adequately dealt with [ ] however, designated 25X1

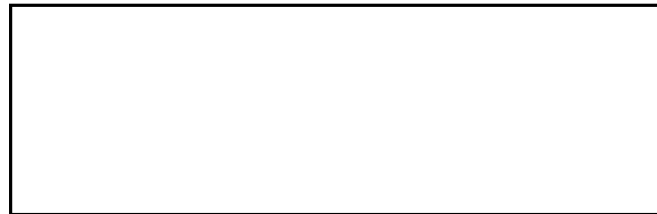
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TAB personnel would like to be able to inspect the development of the product under a more accelerated schedule in order to surface any controversy in a more timely schedule.

25X1



Distribution:

Orig - Chief/TID

1 - Asst/Plans and Development/Attention

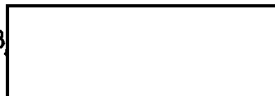


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